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OM protein - protein search, using sw model

Run on: February 16, 2005, 16:08:55 ; Search time 72.962 Seconds
(without alignments)
2014.322 Million cell updates/sec

Title: US-10-003-356-5

Perfect score: 1986

Sequence: 1 LPHSVCTDVCPTGCGFVQ.....TVSTVLDRLVIMCPLKIQ 380

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A_Geneseq_16Dec04:*

1: Geneseqp1980s:*

2: Geneseqp1990s:*

3: Geneseqp2000s:*

4: Geneseqp2001s:*

5: Geneseqp2002s:*

6: Geneseqp2003as:*

7: Geneseqp2003bs:*

8: Geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1986	100.0	380	5 AAE24049	Aae24049 Human V2
2	1986	100.0	927	5 AAE24050	Aae24050 Chimeric
3	1906	96.0	755	7 ADC85997	Adc85997 Human GPC
4	1749	88.1	365	5 ABP95621	Abp95621 Human GPC
5	1727.5	87.0	720	7 ADC12754	Adc12754 Human GPC
6	1444	72.7	912	8 ADI41024	Adi41024 Mouse phe
7	796.5	40.1	835	4 AAY72614	Aay72614 Carassius
8	787.5	39.7	848	8 ADI40974	Adi40974 Goldfish
9	787.5	39.7	848	8 ADI41018	Adi41018 Goldfish
10	783.5	39.5	851	4 AAY72617	Aay72617 Carassius
11	771.5	38.8	856	4 AAY72615	Aay72615 Carassius
12	769.5	38.7	844	8 ADI41017	Adi41017 Goldfish
13	769.5	38.7	844	8 ADI40973	Adi40973 Goldfish
14	760.5	38.3	854	4 AAY72616	Aay72616 Carassius
15	753.5	37.9	880	8 ADI40971	Adi40971 Fugu pher
16	753.5	37.9	880	8 ADI41021	Adi41021 Fugu pher
17	751	37.8	875	8 ADI40972	Adi40972 Fugu pher
18	751	37.8	875	8 ADI41023	Adi41023 Fugu pher
19	747	37.6	856	8 ADI41019	Adi41019 Fugu pher
20	747	37.6	856	8 ADI40970	Adi40970 Fugu pher
21	736.5	37.1	1026	2 AA32059	Aaw32059 Dogfish s
22	736.5	37.1	1027	5 AAU76004	Aau76004 Shark kid
23	736.5	37.1	1027	5 ABB78761	Abb78761 Dogfish s
24	736.5	37.1	1027	7 ADH10917	Adh10917 Shark pol
25	736.5	37.1	1027	7 ABW02706	Abw02706 Dogfish s

ALIGNMENTS

RESULT 1

AAE24049

ID AAE24049 standard; protein; 380 AA.

AC AAE24049;

XX 04-OCT-2002 (first entry)

XX Human V2 vomeronasal receptor (Zvn2R1) C-terminal protein.

XX Human; V2 vomeronasal receptor; Zvn2R1; educational tool; gene therapy; receptor.

XX Homo sapiens.

XX Key Location/Qualifiers

FT Domain /note= "Transmembrane domain-1"

FT Domain 101..113

FT Domain /note= "Intracellular domain"

FT Domain 114..134

FT Domain /note= "Transmembrane domain-2"

FT Domain 135..145

FT Domain /note= "Extracellular domain"

FT Domain 146..170

FT Domain /note= "Transmembrane domain-3"

FT Domain 171..188

FT Domain /note= "Intracellular domain"

FT Domain 189..208

FT Domain /note= "Transmembrane domain-4"

FT Domain 209..230

FT Domain /note= "Extracellular domain"

FT Domain 231..255

FT Domain /note= "Transmembrane domain-5"

FT Domain 256..268

FT Domain /note= "Intracellular domain"

FT Domain 269..289

FT Domain /note= "Transmembrane domain-6"

FT Domain 290..330

FT Domain /note= "Extracellular domain"

FT Domain 326..380

FT Domain /note= "Intracellular domain"

FT Domain 331..325

FT Domain /note= "Transmembrane domain-7"

XX WO200242464-A2.

PD 30-MAY-2002.

XX 15-NOV-2001; 2001WO-US046034.
 XX 21-NOV-2000; 2000US-0252373P.
 XX (ZYMO) ZYMOGENETICS INC.
 XX Lok S, Holloway JL;
 XX WPI; 2002-479953/51.
 XX N-PSDB; AAD39170.
 XX Novel isolated human V2 vomeronasal receptor, termed Zvn2R1, for
 PT identifying presence of Zvn2R1 ligand in sample, as educational tools in
 PT laboratory practicum kits for courses related to genetics and molecular
 PT biology.
 XX Claim 1; Page 85-86; 98pp; English.
 XX The invention relates to an isolated human V2 vomeronasal receptor termed
 CC Zvn2R1. The Zvn2R1 nucleic acid is useful for detecting the expression of
 CC Zvn2R1 gene in a biological sample, to determine if a subject's
 CC chromosomes contain a mutation in the Zvn2R1 gene, and for therapeutic
 CC purposes. Zvn2R1 is useful as an aid to teach preparation of antibodies,
 CC identifying proteins by Western blotting, protein purification,
 CC determining the weight of expressed Zvn2R1 polypeptides as a ratio to
 CC total protein expressed, identifying peptide cleavage sites, coupling
 CC amino and carboxyl terminal tags, amino acid sequence analysis,
 CC monitoring biological activities of both the native and tagged protein in
 CC vitro and in vivo and to teach analytical skills such as mass
 CC spectrometry, circular dichroism to determine conformation, especially of
 CC the four alpha helices X-ray crystallography to determine the three-
 CC dimensional structure in atomic detail, and nuclear magnetic resonance
 CC spectroscopy to reveal the structure of proteins in solution. Zvn2R1 is
 CC useful as educational tools in laboratory practicum kits for courses
 CC related to genetics and molecular biology, protein chemistry, antibody
 CC production and analysis, and as standards or as unknowns for testing
 CC purposes. The invention is useful as a teaching aid to instruct students
 CC how to prepare affinity chromatography columns to purify Zvn2R1, and for
 CC cloning and sequencing the polynucleotide that encodes an antibody and
 CC thus as a practicum for teaching a student how to design humanised
 CC antibodies. The invention is useful in gene therapy. The present sequence
 CC is human Zvn2R1 C-terminal protein
 XX Sequence 380 AA;
 SQ
 Query Match 100.0%; Score 1986; DB 5; Length 380;
 Best Local Similarity 100.0%; Pred. NO. 4.6e-201;
 Matches 380; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 LPHSVCTDVCPPGTRGVQREPICCFDSIPCADGHVSRKPGRECEQGEDYWSNAQKS 60
 Db 1 LPHSVCTDVCPPGTRGVQREPICCFDSIPCADGHVSRKPGRECEQGEDYWSNAQKS 60
 QY 61 ECVLKEVEYLALDAGFTLVILVFGAFVVLAVTAVYVHRTPLVNASDWGLGLIQV 120
 Db 61 ECVLKEVEYLALDAGFTLVILVFGAFVVLAVTAVYVHRTPLVNASDWGLGLIQV 120
 QY 121 SLIIMLSMLFDKPNHNSCMAGQVTLALGFSCLICSLGKTSLSFLAYRISKSTQLT 180
 Db 121 SLIIMLSMLFDKPNHNSCMAGQVTLALGFSCLICSLGKTSLSFLAYRISKSTQLT 180
 QY 181 SMHPLYRKIIVLISVLAIEIGICTAYLILEPPMVKNNESQNTKIIIGCNEISIEFLYSMP 240
 Db 181 SMHPLYRKIIVLISVLAIEIGICTAYLILEPPMVKNNESQNTKIIIGCNEISIEFLYSMP 240
 QY 241 GIDAFALLCLFTTFVARQPDNYEGKCTITPGMLVFFIWMVSFVPIYLTSGKFKQAYE 300
 Db 241 GIDAFALLCLFTTFVARQPDNYEGKCTITPGMLVFFIWMVSFVPIYLTSGKFKQAYE 300
 QY 301 IFAILASHGLGCIIPAKKCLITLLRPNTSIVCGVSTTDCIQLTSFVSSSELNNT 360
 Db 301 IFAILASHGLGCIIPAKKCLITLLRPNTSIVCGVSTTDCIQLTSFVSSSELNNT 360

QY 361 TVSTVLDRLVLYMCPKLQ 380
 Db 361 TVSTVLDRLVLYMCPKLQ 380
 RESULT 2
 AAE24050
 ID AAE24050 standard; protein; 927 AA.
 XX AC AAE24050;
 XX 29-AUG-2003 (revised)
 DT 04-OCT-2002 (first entry)
 XX Chimeric receptor DNA protein.
 XX Human; V2 vomeronasal receptor; Zvn2R1; educational tool; gene therapy;
 KW receptor; murine; chimeric.
 XX Homo sapiens.
 OS Mus sp.
 OS Chimeric.
 FH Key Location/Qualifiers
 FT Domain 1..621 /note= "Extracellular domain"
 FT Peptide 1..29 /label= "Signal_peptide"
 FT Protein 30..927 /note= "Mature chimeric receptor protein"
 FT Domain 30..610 /note= "Ligand binding domain"
 FT Domain 622..647 /note= "Transmembrane domain-1"
 FT Domain 648..660 /note= "Intracellular domain"
 FT Domain 661..681 /note= "Transmembrane domain-2"
 FT Domain 682..692 /note= "Extracellular domain"
 FT Domain 693..717 /note= "Transmembrane domain-3"
 FT Domain 718..735 /note= "Intracellular domain"
 FT Domain 736..755 /note= "Transmembrane domain-4"
 FT Domain 756..777 /note= "Extracellular domain"
 FT Domain 778..802 /note= "Transmembrane domain-5"
 FT Domain 803..815 /note= "Intracellular domain"
 FT Domain 816..836 /note= "Transmembrane domain-6"
 FT Domain 837..847 /note= "Extracellular domain"
 FT Domain 848..872 /note= "Transmembrane domain-7"
 FT Domain 873..927 /note= "Intracellular domain"
 XX WO200242464-A2.
 XX 30-MAY-2002.
 XX 15-NOV-2001; 2001WO-US046034.
 XX 21-NOV-2000; 2000US-0252373P.
 XX (ZYMO) ZYMOGENETICS INC.
 XX Lok S, Holloway JL;

XX WPI; 2002-479953/51.
 DR N-PSDB; AAD39172.
 XX Novel isolated human V2 vomeronasal receptor, termed Zvn2R1, for
 PT identifying presence of Zvn2R1 ligand in sample, as educational tools in
 PT laboratory practicum kits for courses related to genetics and molecular
 PT biology.
 XX Claim 5; Page 93-96; 98pp; English.
 XX The invention relates to an isolated human V2 vomeronasal receptor termed
 CC Zvn2R1. The Zvn2R1 nucleic acid is useful for detecting the expression of
 CC Zvn2R1 gene in a biological sample, to determine if a subject's
 CC chromosomes contain a mutation in the Zvn2R1 gene, and for therapeutic
 CC purposes. Zvn2R1 is useful as an aid to teach preparation of antibodies,
 CC identifying proteins by Western blotting, protein purification,
 CC determining the weight of expressed Zvn2R1 polypeptides as a ratio to
 CC total protein expressed, identifying peptide cleavage sites, coupling
 CC amino and carboxyl terminal tags, amino acid sequence analysis,
 CC monitoring biological activities of both the native and tagged protein in
 CC vitro and in vivo and to teach analytical skills such as mass
 CC spectrometry, circular dichroism to determine conformation, especially of
 CC the four alpha helices X-ray crystallography to determine the three-
 CC dimensional structure in atomic detail, and nuclear magnetic resonance
 CC spectroscopy to reveal the structure of proteins in solution. Zvn2R1 is
 CC useful as educational tools in laboratory practicum kits for courses
 CC related to genetics and molecular biology, protein chemistry, antibody
 CC production and analysis, and as standards or as unknowns for testing
 CC purposes. The invention is useful as a teaching aid to instruct students
 CC how to prepare affinity chromatography columns to purify Zvn2R1, and for
 CC cloning and sequencing the polynucleotide that encodes an antibody and
 CC thus as a practicum for teaching a student how to design humanised
 CC antibodies. The invention is useful in gene therapy. The present sequence
 CC is chimeric receptor protein. This chimeric sequence was designed by
 CC aligning human Zvn2R1 and murine tissue-type vomeronasal putative
 CC pheromone receptor (V2R2). (Updated on 29-AUG-2003 to standardise OS
 CC field)
 XX Sequence 927 AA;
 QY Query Match 100.0%; Score 1986; DB 5; Length 927;
 DB Best Local Similarity 100.0%; Pred. No. 1.5e-200;
 Matches 380; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 LPHSVCTDVCPTGTGFGVQREPICCFDSIPCADGHVSRKPGRECEQCEDYWSNAQS 60
 DB 548 LPHSVCTDVCPTGTGFGVQREPICCFDSIPCADGHVSRKPGRECEQCEDYWSNAQS 607
 QY 61 ECVLKEVEYLAYDEALGFTLVILSVFGAFVVLAVTAVYVHRHTPLVNASDWQLGFLIQV 120
 DB 608 ECVLKEVEYLAYDEALGFTLVILSVFGAFVVLAVTAVYVHRHTPLVNASDWQLGFLIQV 667
 QY 121 SLIIMLSSMLFTDKPHNWSMAGQVTLALGFSCLSLGKTSFLAYRISKSTQLT 180
 DB 668 SLIIMLSSMLFTDKPHNWSMAGQVTLALGFSCLSLGKTSFLAYRISKSTQLT 727
 QY 181 SMHPLRKIVLTVLAEGICTAYLILEPPMYKNMESQNTKIILGCNEISIEFLYSMP 240
 DB 728 SMHPLRKIVLTVLAEGICTAYLILEPPMYKNMESQNTKIILGCNEISIEFLYSMP 787
 QY 241 GIDAFALLCFLTTFVARQLPDNYEGKCTIFGMLVFFIWMSPVYVLTSTGKPKMAVE 300
 DB 788 GIDAFALLCFLTTFVARQLPDNYEGKCTIFGMLVFFIWMSPVYVLTSTGKPKMAVE 847
 QY 301 IFAILASSHGLLCGICFAPKCLIIILLRPERNTSEIVCGRVSTTDCIQLTSFVSSSELNNT 360
 DB 848 IFAILASSHGLLCGICFAPKCLIIILLRPERNTSEIVCGRVSTTDCIQLTSFVSSSELNNT 907
 QY 361 TVSTVLDLDRVLIYMCPLKQ 380
 DB 908 TVSTVLDLDRVLIYMCPLKQ 927

RESULT 3
 ADC85997
 ID ADC85997 standard; protein; 755 AA.
 XX AC ADC85997;
 XX DT 01-JAN-2004 (first entry)
 XX DE Human GPCR protein SEQ ID NO:450.
 XX KW human; GPCR; guanosine triphosphate-binding protein coupled receptor;
 XX gene therapy.
 XX OS Homo sapiens.
 XX PN EP1270724-A2.
 XX PD 02-JAN-2003.
 XX PF 18-JUN-2002; 2002EP-00013517.
 XX PR 18-JUN-2001; 2001JP-00246789.
 XX PA (NAAD-) NAT INST ADVANCED IND SCI & TECHNOLOGY.
 XX PA (ADSC-) CENT ADVANCED SCI & TECHNOLOGY INCUBATIO.
 XX PI Suwa M, Asai K, Akiyama Y, Aburatani H;
 XX WPI; 2003-315783/31.
 DR N-PSDB; ADC85996.
 XX New polynucleotide, useful for preparing a composition for treating a
 PT patient in need of increased or suppressed activity or expression of the
 PT guanosine triphosphate-binding protein coupled receptor.
 PT Claim 2; SEQ ID NO 450; 28pp; English.
 XX The invention relates to a novel polynucleotide encoding a guanosine
 CC triphosphate-binding protein coupled receptor (GPCR). A polynucleotide of
 CC the invention may have a use in gene therapy. The polynucleotide and
 CC polypeptide are useful for preparing a composition for treating a patient
 CC in need of increased or suppressed activity or expression of the
 CC guanosine triphosphate-binding protein coupled receptor. The protein
 CC sequences shown in ADC85549-ADC87617 represent GPCR's of the invention.
 XX Sequence 755 AA;
 QY Query Match 96.0%; Score 1906; DB 7; Length 755;
 DB Best Local Similarity 99.7%; Pred. No. 3.4e-192;
 Matches 367; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
 QY 13 GTGRGFVQREPICCFDSIPCADGHVSRKPGRECEQCEDYWSNAQSCVLKEVEYLAY 72
 DB 388 GTGRGFVQREPICCFDSIPCADGHVSRKPGRECEQCEDYWSNAQSCVLKEVEYLAY 447
 QY 73 DEALGFTLVILSVFGAFVVLAVTAVYVHRHTPLVNASDWQLGFLIQVSLIIMLSSMLF 132
 DB 448 DEALGFTLVILSVFGAFVVLAVTAVYVHRHTPLVNASDWQLGFLIQVSLIIMLSSMLF 507
 QY 133 IDKPHNWSMAGQVTLALGFSCLSLGKTSFLAYRISKSTQLTSMHPLRKIVL 192
 DB 508 IDKPHNWSMAGQVTLALGFSCLSLGKTSFLAYRISKSTQLTSMHPLRKIVL 567
 QY 193 ISVLAEGICTAYLILEPPMYKNMESQNTKIILGCNEISIEFLYSMPGIDAFALLCFL 252
 DB 568 ISVLAEGICTAYLILEPPMYKNMESQNTKIILGCNEISIEFLYSMPGIDAFALLCFL 627
 QY 253 TTFVARQLPDNYEGKCTIFGMLVFFIWMSPVYVLTSTGKPKMAVEIFAILASSHGLL 312
 DB 628 TTFVARQLPDNYEGKCTIFGMLVFFIWMSPVYVLTSTGKPKMAVEIFAILASSHGLL 687
 QY 313 GCIFAPKCLIIILLRPERNTSEIVCGRVSTTDCIQLTSFVSSSELNNTTSTVLDLDRVLI 372

Db 688 GCIFAPKCLIIILRRPNTSEIVCGRVSTTNCIQLTSFVSSHLNNTVSTVLDRLVLI 747
 QY 373 YMCPLKQ 380
 Db 748 YMCPLKQ 755

RESULT 4
 ABP95621
 ID ABP95621 standard; protein; 365 AA.
 XX
 AC ABP95621;
 XX
 DT 06-MAR-2003 (first entry)
 XX
 DE Human GPCR polypeptide SEQ ID NO 52.
 XX
 KW Human; GPCR; G protein coupled receptor; signal transduction; olfactory;
 KW drug development; gustatory; taste; fragrance; receptor.
 XX
 OS Homo sapiens.
 XX
 PN WO200216548-A2.
 XX
 PD 28-FEB-2002.
 XX
 PF 30-JUL-2001; 2001WO-IB001446.
 XX
 PR 04-AUG-2000; 2000JP-00237818.
 PR 13-FEB-2001; 2001JP-00034434.
 XX
 PA (NISC-) JAPAN SCI & TECHNOLOGY CORP.
 XX
 PI Haga T, Takeda S, Mitaku S;
 XX
 DR WPI; 2002-304118/34.
 DR N-PSDB; ABZ42895.
 XX

Database global search for G protein-coupled receptors, proteins and
 encoded genes for studying in vivo signal transduction mechanism and
 identifying targets for drug development.

Claim 10; SEQ ID NO 52; 97pp + Sequence Listing; Japanese.

The invention relates to a method for screening G protein-coupled
 receptor (GPCR) genes (AB242870-AB243216) and/or GPCR proteins (ABP95596-
 ABP95942) by extracting open-reading frames containing 6-8 transmembrane
 domains with 250-1000 amino acid residues to give a gene homologous with
 a known GPCR gene. The receptor proteins and encoded genes are useful for
 studying in vivo signal transduction mechanism and identifying targets
 for drug development e.g. based on olfactory and gustatory receptors in
 form of agonists and antagonists by screening intrinsic and extrinsic
 ligands as bitter taste inhibitors, taste enhancers and fragrance
 improvers. Note: The sequence data for this patent did not form part of
 the printed specification, but was obtained in electronic format directly
 from WIPO at ftp.wipo.int/pub/published_pct_sequences

Sequence 365 AA;
 Query Match 88.1%; Score 1749; DB 5; Length 365;
 Best Local Similarity 99.1%; Pred. No. 5.4e-176;
 Matches 341; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 37 VSRKPERCEQCGEDYWSNAQSECVLKEVEYLAYDEALGFTLVLSVFGAFVVLAVTA 96
 Db 22 VLRSIGERECEQCGEDYWSNAQSECVLKEVEYLAYDEALGFTLVLSVFGAFVVLAVTA 81
 QY 97 VYVTHRHPTLVNADWQLGFLIQVSLIIMLLSSMLFIDKPHNWSWAGQVTLALGFSLCL 156
 Db 82 VYVTHRHPTLVNADWQLGFLIQVSLIIMLLSSMLFIDKPHNWSWAGQVTLALGFSLCL 141
 QY 157 SCLLGKTSFLAYRISKSTQLTSMHPLRYKRIIVLSVLAIEIGICTAYLILEPPMVYKN 216

Db 142 SCLLGKTSFLAYRISKSTQLTSMHPLRYKRIIVLSVLAIEIGICTAYLILEPPMVYKN 201
 QY 217 MESQNTKILIGCNEISIEFLYSMEGIDAFLLALICFLTTFVARQLPDNYEGKCIITFGMLV 276
 Db 202 MESQNTKILIGCNEISIEFLYSMEGIDAFLLALICFLTTFVARQLPDNYEGKCIITFGMLV 261
 QY 277 FFIIMSFVPVYLSTKGKFMVAEIPAILASSHGLLCIFAPKCLIIILRRPNTSEIVC 336
 Db 262 FFIIMSFVPVYLSTKGKFMVAEIPAILASSHGLLCIFAPKCLIIILRRPNTSEIVC 321
 QY 337 GRVSTTDCIQLTSFVSSHLNNTVSTVLDRLVLYMCPLKQ 380
 Db 322 GRVSTTDCIQLTSFVSSHLNNTVSTVLDRLVLYMCPLKQ 365

RESULT 5
 ADC12754
 ID ADC12754 standard; protein; 720 AA.
 XX
 AC ADC12754;
 XX
 DT 18-DEC-2003 (first entry)
 XX
 DE Human GPCR protein, SEQ ID NO 86.
 XX

G protein-coupled receptor; GPCR; antibacterial; fungicide; protozoacide;
 viricide; antirheumatic; antiarthritic; tranquiliser; antidiabetic;
 osteopathic; nootropic; neuroprotective; anorectic; cardiant;
 neuroleptic; cytostatic; antiparkinsonian; hypotensive; hypertensive;
 antiulcer; antiallergic; anticonvulsant; analgesic; infection;
 rheumatoid arthritis; chronic obstructive pulmonary diseases; COPD;
 asthma; non-insulin dependent diabetes; obesity; osteoporosis;
 Alzheimer's disease; age-related macular degeneration;
 myocardial infarction; schizophrenia; osteoarthritis; cancer;
 Parkinson's disease; congestive heart failure; hypotension; hypertension;
 ulcer; allergy; benign prostatic hyperplasia; seizure disorder; anxiety;
 obsessive compulsive disorder; Cushing's syndrome; hypopituitarism; pain;
 human.

Homo sapiens.
 OS
 PN WO2003000893-A2.
 XX
 PD 03-JAN-2003.
 XX
 PF 24-JUN-2002; 2002WO-IB002357.
 XX
 PR 26-JUN-2001; 2001US-0301095P.
 PR 06-NOV-2001; 2001US-0333185P.
 XX
 PA (DECO-) DECODE GENETICS EHF.
 XX
 PI Martinez RMA, Sigurdsson GT;
 XX
 DR WPI; 2003-210155/20.
 DR N-PSDB; ADC12753.
 XX
 PT New G protein-coupled receptor (GPCR) genes and polypeptides, useful for
 PT diagnosing diseases associated with a GPCR, or in gene therapy for
 PT treating e.g. obesity, osteoporosis, Alzheimer's, cancers or congestive
 PT heart failure.
 XX
 PS Claim 10; SEQ ID NO 86; 253pp; English.
 XX

The invention relates to a novel isolated nucleic acid of a G protein-
 coupled receptor (GPCR) gene comprising any of 62 sequences of 912-2454
 bp, or its complements; a GPCR polypeptide comprising any of 62 sequences
 of 291-818 amino acids; or a nucleic acid that hybridises, under high
 stringency conditions, with any of the 62 GPCR sequences or any of their
 complements. The GPCR agents of the invention have the following
 activities: antibacterial, fungicide, protozoacide, virucide,
 antirheumatic, tranquiliser, antiarthritic, antidiabetic, osteopathic,

CC nootropic, neuroprotective, anorectic, cardiant, neuroleptic, cytostatic,
 CC antiparkinsonian, hypotensive, hypertensive, antiulcer, antiallergic,
 CC anticonvulsant, and analgesic. The GPCR therapeutic agent, particularly a
 CC GPCR gene agonist or antagonist, is useful for treating a disease or
 CC condition associated with a GPCR in an individual. The nucleic acid cited
 CC above, which is 100 or fewer nucleotides in length, is useful for
 CC assaying a sample for the presence of the GPCR gene nucleic acid or a
 CC GPCR gene nucleic acid with at least one nucleotide difference from a
 CC first nucleic acid, or for diagnosing a susceptibility to a disease or
 CC conditions associated with a GPCR. These diseases include infections
 CC (e.g. bacterial, fungal, protozoan or viral), rheumatoid arthritis,
 CC chronic obstructive pulmonary diseases (COPD), asthma, non-insulin
 CC dependent diabetes, obesity, osteoporosis, Alzheimer's disease, age-
 CC related macular degeneration, myocardial infarction, schizophrenia,
 CC osteoarthritis, cancers, Parkinson's diseases, congestive heart failure,
 CC hypotension, hypertension, ulcers, allergies, benign prostatic
 CC hyperplasia, seizure disorder, anxiety, obsessive compulsive disorder,
 CC Cushing's syndrome, hypopituitarism, or pain. This sequence represents
 CC one of the 62 GPCR proteins of the invention.

XX SQ Sequence 720 AA;

Query Match 87.0%; Score 1727.5; DB 7; Length 720;
 Best Local Similarity 97.9%; Pred. No. 2.5e-173;
 Matches 331; Conservative 2; Mismatches 4; Indels 1; Gaps 1;
 QY 1 LPHSVCTDVCPPGTGRGF-VQREPICCFDSIPCADGHVSRKPGERECEQGEDYWSNAQ 59
 Db 383 LPHSVCTDVCPPGTGRGIRSEGEPICCFDSIPCADGHVSRKPGERECEQGEDYWSNAQ 442
 QY 60 SECVLKEVEYLADEALGFTLVLSVFGAPVLAIVYVHRTPLVNASDWQLGFLIQ 119
 Db 443 SECVLKEVEYLADEALGFTLVLSVFGAPVLAIVYVHRTPLVNASDWQLGFLIQ 502
 QY 120 VSLIIMLSMLFIDKPHNWSWAGQVTLALGFSCLICLIGTSSILFLAYRISKSTQL 179
 Db 503 VSLIIMLSMLFIDKPHNWSWAGQVTLALGFSCLICLIGTSSILFLAYRISKSTQL 562
 QY 180 TSMHPLYRKIIVLISVLAIEGICTAVLLEPPVYKNMESQNTKIILGNCNEISIBFLYSM 239
 Db 563 TSMHPLYRKIIVLISVLAIEGICTAVLLEPPVYKNMESQNTKIILGNCNEISIBFLYSM 622
 QY 240 FGIDAFLLALCFLLTTFVARQLPNYYEGKCIITFGMLVFFIWMSPVVLSTKGKPKMAV 299
 Db 623 FGIDAFLLALCFLLTTFVARQLPNYYEGKCIITFGMLVFFIWMSPVVLSTKGKPKMAV 682
 QY 300 EIFAILASHHGLGCIAPKCLILLRPERNTSEIVCG 337
 Db 683 EIFAILASHHGLGCIAPKCLILLRPERNTSEIVCG 720

RESULT 6

AD141024

ID AD141024 standard; protein; 912 AA.

XX AC AD141024;

XX DT 22-APR-2004 (first entry)

XX DE Mouse pheromone receptor V2R2.

XX

Receptor; GPCR; G protein-coupled receptor; reproductive disorder;
 KW testicular disorder; vas deferens disorder; spermatogenesis; infertility;
 KW XX male; epididymitis; cryptorchidism; sperm transport disorder;
 KW testicular cancer; testicular germ cell tumour; male hormone disorder;
 KW premature puberty; Kallman syndrome; Cushing's syndrome; immune disorder;
 KW leukaemia; arthritis; asthma; AIDS; rheumatoid arthritis;
 KW inflammatory bowel disease; sepsis; T-cell mediated cytotoxicity;
 KW graft-versus-host disease; autoimmunity disorder;
 KW systemic lupus erythematosus; drug induced haemolytic anaemia;
 KW Sjogren's disease; T-cell maturation disorder;
 KW B-cell maturation disorder; vascular disorder; stroke; ischaemia;
 KW myocardial infarction; atherosclerosis; gastrointestinal disorder; ulcer;

KW pulmonary disorder; brain disorder; endocrine disorder; cancer;
 KW gene therapy.

XX Mus musculus.

XX US2004018976-A1.

XX 29-JAN-2004.

XX 13-MAY-2003; 2003US-00436715.

XX 14-MAY-2002; 2002US-0380336P.

XX (FEDE/) FEDER J N.

XX (MINT/) MINTIER G.

XX (RAMA/) RAMANATHAN C S.

PI Feder JN, Mintier G, Ramanathan CS;

XX WPI; 2004-122081/12.

XX New human G-protein coupled receptor polypeptide and polynucleotide,

PT useful for diagnosing, preventing, treating or ameliorating a medical

PT condition, e.g. reproductive disorder, immunodeficiency disease or

PT testicular cancer.

XX Disclosure; SEQ ID NO 84; 290pp; English.

The invention relates to an isolated human G protein-coupled receptor polypeptide and its encoding polynucleotide, including the full length proteins minus the start methionine (and the region of the polynucleotide encoding this protein region). The proteins are designated HGPRBWY30-1, HGPRBWY30-2, HGPRBWY30-3, HGPRBWY41-1, HGPRBWY41-2, HGPRBWY41-3, HGPRBWY42, HGPRBWY42-1, HGPRBWY43 and HGPRBWY44. Also included are expression vectors, host cells, antibodies, preventing (treating or ameliorating) a medical condition comprising administering to a mammalian subject the polypeptide or its modulator and diagnosing a pathological condition or a susceptibility to a pathological condition in a subject (comprising determining the presence or absence of a mutation in the polynucleotide, or the presence or amount of expression of the polypeptide in a biological sample and diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of the mutation, or the presence or amount of expression of the polypeptide). The human G-protein coupled receptor polypeptide or polynucleotide can be used for diagnosing a pathological condition or a susceptibility to a pathological condition in a subject, and for preventing, treating or ameliorating a medical condition, such as a disorder related to aberrant G-protein coupled receptor activity, a disorder related to aberrant signal transduction, a reproductive disorder; a male reproductive disorder, a testicular disorder, a vas deferens disorder, spermatogenesis, infertility, Klinefelter's syndrome, XX male, epididymitis, genital warts, germinal cell aplasia, cryptorchidism, varicocele, immotile cilia syndrome, viral orchitis, sperm transport disorders, testicular cancer, choriocarcinoma, non-seminoma, seminoma, testicular germ cell tumours, male hormone disorders, premature puberty, incomplete puberty, Kallman syndrome, Cushing's syndrome, an immune disorder, a proliferative immune disorder, leukaemia, arthritis, asthma, immunodeficiency diseases such as AIDS, rheumatoid arthritis, granulomatous disease, inflammatory bowel disease, sepsis, acne, neutropenia, neutrophilia, psoriasis, hypersensitivities, such as T-cell mediated cytotoxicity, immune reactions to transplanted organs and tissues, such as host-versus-graft and graft-versus-host diseases, or autoimmunity disorders, such as autoimmune infertility, demyelination, systemic lupus erythematosus, drug induced haemolytic anaemia, Sjogren's disease, scleroderma, T-cell maturation disorders, B-cell maturation disorders, vascular disorders, stroke, ischaemia, myocardial infarction, atherosclerosis, embolisms, thrombosis, gastrointestinal disorders, irritable bowel syndrome, ulcers, pulmonary disorders, brain disorders, endocrine disorders, or ovarian, stomach, colon or kidney cancer or its endocrine proliferative condition (many other diseases and disorders are listed in the specification). The antibodies may be used to purify, detect and target the G-protein coupled receptor polypeptides. The polynucleotides are also useful in gene therapy. The present sequence

CC represents a species homologue of a novel GPCR of the invention.

AX
SQ Sequence 912 AA;

Query Match 72.7%; Score 1444; DB 8; Length 912;
Best Local Similarity 74.7%; Pred. No. 3.5e-143;
Matches 274; Conservative 37; Mismatches 56; Indels

[illegible]

RESULT 7
AAY72614
ID AAY72614 standard; protein; 835 AA.

AA
AC AAY72614;

DT 02-MAY-2001 (first entry)

Carassius auratus full-length CaSR-like protein #1.

Goldfish; G protein-coupled odorant family receptor; R5.24; screening; conception; reproductive behaviour; sexual behaviour; non-sexual social behaviour; olfactory system; reproductive physiology; feeding behaviour; migratory behaviour; implantation; oestrous; menstruation; CaSR-like protein.

OS Carassius auratus.

Key	Location/Qualifiers
Misc-difference 338	/Label= Unknown
Misc-difference 361	/Label= Unknown
Misc-difference 379	/Label= Unknown
Misc-difference 380	/Label= Unknown
Misc-difference 406	/Label= Unknown

25-JAN-2001.

19-JUL-2000; 2000WO-US019687.

Y

PR 20-JUL-1999; 99US-0144766P.

PA (REGC) UNIV CALIFORNIA.

PI Ngai J, Specá DJ, Lin DM, Isacoff EY, Dittman AH, Fan J;

DR WPI; 2001-159517/16.

PT Novel G protein-coupled odorant family receptors, useful for screening
PT compounds capable of modulating reproductive/sexual and non-sexual social
PT behaviors.

PS Claim 6; Page 40-42; 62pp; English.

The patent discloses methods and compositions relating to odorant receptors, including a general expression cloning methodology which is useful for identifying novel G protein-coupled receptors and a novel family of odorant receptors and related nucleic acids, ligands, agonists and antagonists. RS.24 which is an odorant receptor and the nucleic acid sequences encoding RS.24 are useful for screening related receptors, agonists and antagonists of RS.24, which are useful for modulating reproductive/sexual and non-sexual social behaviours mediated through the olfactory system, reproductive physiologies and olfactory system regulated feeding behaviours, migratory behaviours and events such as conception, implantation, oestrous, and menstruation. RS.24 nucleic acid sequence is useful as translatable transcripts, hybridisation probes, PCR primers, diagnostic nucleic acids, for detecting the presence of RS.24 genes and gene transcripts, and in detecting or amplifying nucleic acids encoding additional RS.24 homologues and structural analogues. The present sequence is *Carassius auratus* full-length CaSR-like protein. CaSR-like receptor family shows similarity to receptor 5.24 and is specifically expressed in the goldfish olfactory epithelium

Sequence 835 AA;

Query Match 40.1%; Score 796.5; DB 4; Length 835;
Best Local Similarity 43.5%; Pred. No. 1.1e-74;
Matches 147; Conservative 72; Mismatches 118; Indels 1

QY 2 PHSVCTDVCPPGTGRGFVQREPICCFDSIPCADGHVSRKPGERECQCGEDYWSNAOKSE 61

D**b** 496 PNVCS**E**S**E**CL**P**GRTRAA**Q**GR**P**VC**C**Y**D**IP**C**AE**G**EIS**N**ET**S**DN**N**CK**Q**CP**R**E**Y**W**S**NA**E**Y**T**K 555

QY 62 CVLKEVEYLAYDEALGFTTILVLSVFGAFWLAVTAVYVIHRHTPLVNASDWQLGFIQVS 121

Db 556 CVLKAVEFLSFTVMGIVLAPFSLFGAGLTALVAILFYMRDTPIVKANSELSEFLJFS 615

QY 122 LIIMLLSSMLFIDKPHNWSCMAGQVTLALGFSCLCLLCKTSSFLAYRISKSKTQLTS 181

Db LTLCLCSLTFIGQPNWSCMLRHTAFGITFVLCISCVLGTIVVLMFAFKATLPGSNVMK 675

QY 182 -MHPLYRKIIIVLISVLAEGIGICTAYLILEPPMVYKNMESQNTKIIILGCNEISIEFLYSMF 240C

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Db      676 WFGPAQQLSVLALTFIQILICVLWLTISPFPYKMKYFKEKILIECSIGSSISFWAVL 7355
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QY 241 GIDAFALLCFLTTTFVARQLPDNYYEGKCITFGMLVFFIIMNSFVPVVLSTKGKFKMAVE 3000

Db 736 GYIGLLAVLCIFILAFARTLPDNFNEAKFITFSMLIFCAVWITFPAVSSPGKYTVAVE 7955

QY 301 IFAILASSHGLGCFAPKCLIIILLRPERNTSEIVCGR 338

D**b** 796 IFAILASSFGLFCIFAPKCYIILLKPDQNTKKHMMGK 833

RESULT 8
ADI40974

ADI40974
ID ADI40974 standard; protein; 848 AA.

AC ADI40974;

DT 22-APR-2004 (first entry)

DE Goldfish putative odorant receptor 2.

XX	Receptor; GPCR; G protein-coupled receptor; reproductive disorder; testicular disorder; vas deferens disorder; spermatogenesis; infertility;
KW	XX male; epididymitis; cryptorchidism; sperm transport disorder;
KW	testicular cancer; testicular germ cell tumour; male hormone disorder;
KW	premature puberty; Kallman syndrome; Cushing's syndrome; immune disorder;
KW	leukaemia; arthritis; asthma; AIDS; rheumatoid arthritis;
KW	inflammatory bowel disease; sepsis; T-cell mediated cytotoxicity;
KW	graft-versus-host disease; autoimmunity disorder;
KW	systemic lupus erythematosus; drug induced haemolytic anaemia;
KW	Sjogren's disease; T-cell maturation disorder;
KW	B-cell maturation disorder; vascular disorder; stroke; ischaemia;
KW	myocardial infarction; atherosclerosis; gastrointestinal disorder; ulcer;
KW	pulmonary disorder; brain disorder; endocrine disorder; cancer;
KW	gene therapy.
XX	
OS	Carassius auratus.
OS	
XX	US2004018976-A1.
XX	
XX	29-JAN-2004.
XX	
XX	13-MAY-2003; 2003US-00436715.
XX	
XX	14-MAY-2002; 2002US-0380336P.
XX	
XX	(FEDE/) FEDER J N.
XX	(MINT/) MINTIER G.
XX	(RAMA/) RAMANATHAN C S.
XX	
XX	Feder JN, Mintier G, Ramanathan CS;
XX	WPI; 2004-122081/12.
XX	
XX	New human G-protein coupled receptor polypeptide and polynucleotide,
PT	useful for diagnosing, preventing, treating or ameliorating a medical
PT	condition, e.g. reproductive disorder, immunodeficiency disease or
PT	testicular cancer.
XX	
XX	Disclosure; SEQ ID NO 34; 290pp; English.
PS	
XX	
XX	The invention relates to an isolated human G protein-coupled receptor
CC	polypeptide and its encoding polynucleotide, including the full length
CC	proteins minus the start methionine (and the region of the polynucleotide
CC	encoding this protein region). The proteins are designated HGPRBW30-1,
CC	HGPRBW30-2, HGPRBW30-3, HGPRBW41-1, HGPRBW41-2, HGPRBW41-3,
CC	HGPRBW42, HGPRBW42-1, HGPRBW43 and HGPRBW44. Also included are
CC	expression vectors, host cells, antibodies, preventing (treating or
CC	ameliorating) a medical condition comprising administering to a mammalian
CC	subject the polypeptide or its modulator and diagnosing a pathological
CC	condition or a susceptibility to a pathological condition in a subject
CC	(comprising determining the presence or absence of a mutation in the
CC	polynucleotide, or the presence or amount of expression of the
CC	polypeptide in a biological sample and diagnosing a pathological
CC	condition or a susceptibility to a pathological condition based on the
CC	presence or absence of the mutation, or the presence or amount of
CC	expression of the polypeptide). The human G-protein coupled receptor
CC	polypeptide or polynucleotide can be used for diagnosing a pathological
CC	condition or a susceptibility to a pathological condition in a subject,
CC	and for preventing, treating or ameliorating a medical condition, such as
CC	a disorder related to aberrant G-protein coupled receptor activity, a
CC	disorder related to aberrant signal transduction, a reproductive disorder
CC	; a male reproductive disorder, a testicular disorder, a vas deferens
CC	disorder, spermatogenesis, infertility, Klinefelter's syndrome, XX male,
CC	epididymitis, genital warts, germinal cell aplasia, cryptorchidism,
CC	varicocele, immotile cilia syndrome, viral orchitis, sperm transport
CC	disorders, testicular cancer, choriocarcinoma, non-seminoma, seminoma,
CC	testicular germ cell tumours, male hormone disorders, premature puberty,
CC	incomplete puberty, Kallman syndrome, Cushing's syndrome, an immune
CC	disorder, a proliferative immune disorder, leukaemia, arthritis, asthma,
CC	immunodeficiency diseases such as AIDS, rheumatoid arthritis,
CC	granulomatous disease, inflammatory bowel disease, sepsis, acne,
CC	neutropenia, neutrophilia, psoriasis, hypersensitivities, such as T-cell

CC mediated cytotoxicity, immune reactions to transplanted organs and
CC tissues, such as host-versus-graft and graft-versus-host diseases, or
CC autoimmunity disorders, such as autoimmune infertility, demyelination,
CC systemic lupus erythematosus, drug induced haemolytic anaemia, Sjogren's
CC disease, scleroderma. T-cell maturation disorders, B-cell maturation
CC disorders, vascular disorders, stroke, ischaemia, myocardial infarction,
CC arteriosclerosis, emboliisms, thrombosis, gastrointestinal disorders,
CC irritable bowel syndrome, ulcers, pulmonary disorders, brain disorders,
CC endocrine disorders, or ovarian, stomach, colon or kidney cancer or its
CC related proliferative condition (many other diseases and disorders are
CC listed in the specification). The antibodies may be used to purify,
CC detect and target the G-protein coupled receptor polypeptides. The
CC polynucleotides are also useful in gene therapy. The present sequence
XX represents a species homologue of a novel GPCR of the invention.
XX

```

SQ      Sequence 848 AA;
Query Match           39.7%; Score 787.5; DB 8; Length 848;
Best Local Similarity 41.6%; Pred. NO. 9.9e-74;
Matches 139; Conservative 78; Mismatches 116; Indels 1; Gaps 1;
```

QY	1	LPHSVCTDVCPPGTGRGFGVOREPICCFDSIPCADGHVRKPGERECEQCAGEDYMSNAQS	60
DB	510	VFVSVCSSCPPTRGVKVGKGKICCYDCIPCETGEHSNTTSDVTCLRCHQDFSNWQND	569
QY	61	ECVLKEVEYLAYDEALGFTLTVILSVFEGAFVLAVTAIVYYIHRHTPLVNASDWOLGFLIQV	120
DB	570	GCVKKETEPLSYEEINGILLTTISLVGAPITIIIAVIFFRYKNTPPIVKANNSLSPLLFP	629
QY	121	SLLIMLSSMLFDIKPWNWSCMAQTVALGPSLCSLCKLGKTSSUPLAYRISSKTQLT	180
DB	630	SLMCLFCLSLTFIGRTPESSCMLRHATFAFTTFVLCISCVLGKITVVLMAFPRTLPGSNVM	689
QY	181	S-MHPLYRKTIIVLSVLAEIGICTAYLIILEPPPVMYKNMESONTKIILGCNEISTEPLYSM	239
DB	690	KWFPGPOORLSUVSFTELIQVILCVMTITYPPPFNNLNYPFKKILLECNVGSVGVFWAV	749
QY	240	FGDADFALLALCFLTTFVARQLPDNYYYEGKKITTGMGLVPFFFIWMSPFYVILTSGKFPMVA	299
DB	750	LGYIGLLAILCPFLEAFLARKLPDNFEAKPTFTFMLIFCAVIAFTAIFYVSSPGKPTVA	809
QY	300	HIFAIALASSHLGLCGIPAPKCILLIILPERNTSE	333
DB	810	EVFAILASTYGMLFCIFIPKPICYIILLKPKDKSKK	843

RESULT 9
AD141018 ID AD141018 standard; protein; 848 AA.

AC AADI41018;
XZ
DT 22-APR-2004 (first entry)
XX Goldfish putative odorant receptor 2 #2.

Receptor; GPCR; G protein-coupled receptor; reproductive disorder;
testicular disorder; vas deferens disorder; spermatogenesis; infertility;
XX male; epididymitis; cryptorchidism; sperm transport disorder;
testicular cancer; testicular germ cell tumour; male hormone disorder;
premature puberty; Kallman syndrome; Cushing's syndrome; immune disorder;
leukemia; arthritis; asthma; AIDS; rheumatoid arthritis;
inflammatory bowel disease; sepsis; T-cell mediated cytotoxicity;
graft-versus-host disease; autoimmunity disorder;
systemic lupus erythematosus; drug induced haemolytic anaemia;
SJogren's disease; T-cell maturation disorder;
B-cell maturation disorder; vascular disorder; stroke; ischaemia;
myocardial infarction; atherosclerosis; gastrointestinal disorder; ulcer;
pulmonary disorder; brain disorder; endocrine disorder; cancer;
gene therapy.

Carassius auratus.

XX OS XX

agonists and antagonists of R5.24, which are useful for modulating reproductive/sexual and non-sexual social behaviours mediated through the olfactory system, reproductive physiologies and olfactory system regulated feeding behaviours, migratory behaviours and events such as conception, implantation, oestrous, and menstruation. R5.24 nucleic acid sequence is useful as translatable transcripts, hybridisation probes, PCR primers, diagnostic nucleic acids, for detecting or amplifying nucleic acids genes and gene transcripts, and in detecting or amplifying nucleic acids encoding additional R5.24 homologues and structural analogues. The present sequence is Carassius auratus full-length CasR-like protein. CasR-like receptor family shows similarity to receptor 5.24 and is specifically expressed in the goldfish olfactory epithelium

XX SQ Sequence 851 AA;

Query Match 39.5%; Score 783.5; DB 4; Length 851;
Best Local Similarity 42.6%; Pred. No. 2.6e-73;
Matches 144; Conservative 69; Mismatches 124; Indels 1; Gaps 1;
QY 2 PHSVCTDVCPTGRTGQVQREPICCFDSIPCADGHVSRKPGERECEQCGEDYWSNAQKE 61
Db 513 PVSVCSESCPPGTRKAVQKGRPVCCYDCIPCSGEINNETDSSDCFPDLEYSNEGKDK 572
QY 62 CVLKEVEYLAYDEALGFTLVILSVFGAFVVLATAVYVHRHTPLVNASDWOLGFLIQVS 121
Db 573 CVLKWVEFLSYTBIMGTVCIFSGFGLLTAIVSFVYLHKTETPIVRANNSLSFLLIFS 632
QY 122 LIIMLLSSMLFDIKPHNWSQMAQVTLALGFSCLCLGKTSSLSFLAYRIS-KSKTOLT 180
Db 633 LSCFCFCSLTFIGRPTWNSCMLRHTAFGVTVLCISVLGKTIVLMFAFATLPGSNVWK 692
QY 181 SMHPLRYKRIIVLSVLAIGICTAYLILEPMPVYKNMESQNTKIILGCNEISIEFLYSMF 240
Db 693 CFGPLQQRPSVWSLSLIQMIICVLMWTISPPFPFVNLVYREKIILECNLSALGFWGLV 752
QY 241 GIDAFIALLCFLTFVARQLPDNYEGKCTITFCMLVFFIWMSPVYVLTGKFKPMAYE 300
Db 753 GYTGLLSILCFILAFIARLKPDPNFNEAKFTIFSMLIFCAVWITFIPAYVSSPGKFTVAQ 812
QY 301 IFAILASSHGLGICFAPKCLIIILRPNTSIVCGR 338
Db 813 IFAILASSFLLFCIFAPKCYIIILKPERNKKQIMGR 850

RESULT 11

AAY72615
ID AAY72615 standard; protein; 856 AA.

XX AC AAY72615;

XX DT 02-MAY-2001 (first entry)

XX DE Carassius auratus full-length CasR-like protein #2.

XX KW Goldfish; G protein-coupled odorant family receptor; R5.24; screening;
XX KW conception; reproductive behaviour; sexual behaviour;
XX KW non-sexual social behaviour; olfactory system; reproductive physiology;
XX KW feeding behaviour; migratory behaviour; implantation; oestrous;
XX KW menstruation; CasR-like protein.

XX OS Carassius auratus.

XX FH Key Location/Qualifiers

XX FT Misc-difference 841

XX FT Misc-difference 849 /label= Unknown

XX FT Misc-difference 849 /label= Unknown

XX PN WO200105833-A1.

XX PD 25-JAN-2001.

XX PF 19-JUL-2000; 2000WO-US019687.

XX

PR 20-JUL-1999; 99US-0144766P.

XX (REGC) UNIV CALIFORNIA.

PI Ngai J, Specia DJ, Lin DM, Isaacoff EY, Dittman AH, Fan J;

XX WPI; 2001-159517/16.

XX Novel G protein-coupled odorant family receptors, useful for screening
PT compounds capable of modulating reproductive/sexual and non-sexual social
PT behaviours.

XX Claim 6; Page 42-44; 62pp; English.

XX The patent discloses methods and compositions relating to odorant
CC receptors, including a general expression cloning methodology which is
CC useful for identifying novel G protein-coupled receptors and a novel
CC family of odorant receptors and related nucleic acids, ligands, agonists
CC and antagonists. R5.24 which is an odorant receptor and the nucleic acid
CC sequences encoding R5.24 are useful for screening related receptors,
CC agonists and antagonists of R5.24, which are useful for modulating
CC reproductive/sexual and non-sexual social behaviours mediated through the
CC olfactory system, reproductive physiologies and olfactory system
CC regulated feeding behaviours, migratory behaviours and events such as
CC conception, implantation, oestrous, and menstruation. R5.24 nucleic acid
CC sequence is useful as translatable transcripts, hybridisation probes, PCR
CC primers, diagnostic nucleic acids, for detecting the presence of R5.24
CC genes and gene transcripts, and in detecting or amplifying nucleic acids
CC encoding additional R5.24 homologues and structural analogues. The
CC present sequence is Carassius auratus full-length CasR-like protein. CasR
CC -like receptor family shows similarity to receptor 5.24 and is
CC specifically expressed in the goldfish olfactory epithelium

XX SQ Sequence 856 AA;

Query Match 38.8%; Score 771.5; DB 4; Length 856;

Best Local Similarity 42.2%; Pred. No. 5e-72;

Matches 141; Conservative 66; Mismatches 126; Indels 1; Gaps 1;

QY 1 LPHSVCTDVCPTGRTGQVQREPICCFDSIPCADGHVSRKPGERECEQCGEDYWSNAQKS 60

Db 511 LPVSVCSCTCPPGTRKAVQKGRPVCCYDCIPCSGEISNGTSDNDCFPDLEYSNESND 570

QY 61 ECVLKEVEYLAYDEALGFTLVILSVFGAFVVLATAVYVHRHTPLVNASDWOLGFLIQV 120

Db 571 RCVLKWVEFLSYTBIMGTVCIFSGFGLLTAIVSFVYLHKTETPIVRANNSLSFLLIF 630

QY 121 LIIMLLSSMLFDIKPHNWSQMAQVTLALGFSCLCLGKTSSLSFLAYRISKSKTOLT 180

Db 631 SLTLCFCLSLTFIGRPTWNSCMLRHTAFGTVLVCISLIGKTIVVLMFAFATLPGSNVM 690

QY 181 S-MHPLRYKRIIVLSVLAIGICTAYLILEPMPVYKNMESQNTKIILGCNEISIEFLYSM 239

Db 691 KWFGLPQQQLSVSVSLTIQMIICVLMWTISPPFPFVNLVYREKIILECNVSGDLAFWV 750

QY 240 FGIDAFIALLCFLTFVARQLPDNYEGKCTITFCMLVFFIWMSPVYVLTGKFKPMAY 299

Db 751 LGYTGLLSILCFILAFIARLKPDPNFNEAKFTIFSMLIFCAVWITFIPAYVSSPGKFTVAV 810

QY 300 EIFAILASSHGLGICFAPKCLIIILRPNTSIE 333

Db 811 EIFAILASSFLLFCIFAPKCYIIILKPERNKK 844

RESULT 12

ADIA41017

ID ADIA41017 standard; protein; 844 AA.

XX AC ADIA41017;

XX DT 22-APR-2004 (first entry)

XX US2004018976-A1.
 XX 29-JAN-2004.
 XX 13-MAY-2003; 2003US-00436715.
 XX 14-MAY-2002; 2002US-0380336P.
 XX (FEDE/) FEDER J N.
 XX (MINT/) MINTIER G.
 XX (RAMA/) RAMANATHAN C S.
 XX Feder JN, Mintier G, Ramanathan CS;
 XX WPI; 2004-122081/12.
 XX New human G-protein coupled receptor polypeptide and polynucleotide,
 XX useful for diagnosing, preventing, treating or ameliorating a medical
 XX condition, e.g. reproductive disorder, immunodeficiency disease or
 XX testicular cancer.
 XX Disclosure; SEQ ID NO 33; 290pp; English.
 XX The invention relates to an isolated human G protein-coupled receptor
 XX polypeptide and its encoding polynucleotide, including the full length
 XX proteins minus the start methionine (and the region of the polynucleotide
 XX encoding this protein region). The proteins are designated HGPBMY30-1,
 XX HGPBMY30-2, HGPBMY30-3, HGPBMY41-1, HGPBMY41-2, HGPBMY41-3,
 XX HGPBMY42, HGPBMY42-1, HGPBMY43 and HGPBMY44. Also included are
 XX expression vectors, host cells, antibodies, preventing (treating or
 XX ameliorating) a medical condition comprising administering to a mammalian
 XX subject the polypeptide or its modulator and diagnosing a pathological
 XX condition or a susceptibility to a pathological condition in a subject
 XX (comprising determining the presence or absence of a mutation in the
 XX polynucleotide, or the presence or amount of expression of the
 XX polypeptide in a biological sample and diagnosing a pathological
 XX condition or a susceptibility to a pathological condition based on the
 XX presence or absence of the mutation, or the presence or amount of
 XX expression of the polypeptide). The human G-protein coupled receptor
 XX polypeptide or polynucleotide can be used for diagnosing a pathological
 XX condition or a susceptibility to a pathological condition in a subject,
 XX and for preventing, treating or ameliorating a medical condition, such as
 XX a disorder related to aberrant G-protein coupled receptor activity, a
 XX disorder related to aberrant signal transduction, a reproductive disorder
 XX : a male reproductive disorder, a testicular disorder, a vas deferens
 XX disorder, spermatogenesis, infertility, Klinefelter's syndrome, XX male,
 XX epididymitis, genital warts, germinal cell aplasia, cryptorchidism,
 XX varicocele, immotile cilia syndrome, viral orchitis, sperm transport
 XX disorders, testicular cancer, choriocarcinoma, non-seminoma, seminoma,
 XX testicular germ cell tumors, male hormone disorders, premature puberty,
 XX incomplete puberty, Kallman syndrome, Cushing's syndrome, an immune
 XX disorder, a proliferative immune disorder, leukaemia, arthritis, asthma,
 XX immunodeficiency diseases such as AIDS, rheumatoid arthritis,
 XX granulomatous disease, inflammatory bowel disease, sepsis, acne,
 XX neutropenia, neutrophilia, psoriasis, hypersensitivities, such as T-cell
 XX mediated cytotoxicity, immune reactions to transplanted organs and
 XX tissues, such as host-versus-graft and graft-versus-host diseases, or
 XX autoimmunity disorders, such as autoimmune infertility, demyelination,
 XX systemic lupus erythematosus, drug induced haemolytic anaemia, Sjogren's
 XX disease, scleroderma, T-cell maturation disorders, B-cell maturation
 XX disorders, vascular disorders, stroke, ischaemia, myocardial infarction,
 XX atherosclerosis, embolisms, thrombosis, gastrointestinal disorders,
 XX irritable bowel syndrome, ulcers, pulmonary disorders, brain disorders,
 XX endocrine disorders, or ovarian, stomach, colon or kidney cancer or its
 XX related proliferative condition (many other diseases and disorders are
 XX listed in the specification). The antibodies may be used to purify,
 XX detect and target the G-protein coupled receptor polypeptides. The
 XX polynucleotides are also useful in gene therapy. The present sequence
 XX represents a species homologue of a novel GPCR of the invention.
 XX Sequence 844 AA;

Query Match 38.7%; Score 769.5; DB 8; Length 844;
 Best Local Similarity 41.8%; Pred. No. 7.9e-72;
 Matches 145; Conservative 72; Mismatches 129; Indels 1; Gaps 1;
 QY 2 PHSVCTDYCPGCTGRGFGVQREPICCFDSIPCADGHVSRKPGRECEQCQEDYWSNAQSE 61
 DB 496 PRSACSESCPPGTRKAAQGRPFCCYDCIPCAEGBISNETRFINCKPCPWEYWSNAENK 555
 QY 62 CVLKEVEYLAYDEALGFTLVILSVFAGFWLAVTAVYVHRRHTPLVNASDWOLGFLIQVS 121
 DB 556 CVLKAVEPLSFTEIMGVWLVFSLFGVGLTLVAILFYNNKOTPMWKANNSELSFLLFS 615
 QY 122 LIIMLSSMLFIDKPHNWSMAGQVTLALGFSCLISLGLKTSSTSLFLAVRISKSTQLTS 181
 DB 616 LTLCLFSLTFTIGRPTWNSCMLCHTAFGITFVLCISCVLGTIVVLMAFKATLPGNINIM 675
 QY 182 -MHPLYRKIVLISVLAIGICTAVLLEPPMVKNNMESQNTKILGCNEISTEFLYSNF 240
 DB 676 WFGPAQORLSVLAFTLIQVILCVLWLTISPPPYKMKYKKEKILDECISLSTIGFWAVL 735
 QY 241 GIDAFALALCFLTTTFVARQLPDNYVEGKICITFCMLVFFFIIMWSFVYVLTSTKGKPMAYE 300
 DB 736 TWISLLAFCLFILAFLARTLPDKFNEAKFITFSMLIFCAVWITFPAYVSSPGKFTVAV 795
 QY 301 IFAILLASHGLGCIAPAKCLILILRPERNTSEIVCGRVSTTDCIQ 347
 DB 796 IFAILLSSPGLLFGIFAPKCYIILLKPEQNTKQHLIGTKTASVSLAQ 842
 RESULT 14
 ID AAY72616 standard; protein; 854 AA.
 XX AAY72616;
 XX 02-MAY-2001 (first entry)
 XX Carassius auratus full-length CasR-like protein #3.
 DE Goldfish; G protein-coupled odorant family receptor; R5.24; screening;
 KW conception; reproductive behaviour; sexual behaviour;
 KW non-sexual social behaviour; olfactory system; reproductive physiology;
 KW feeding behaviour; migratory behaviour; implantation; oestrous;
 KW menstruation; CasR-like protein.
 XX Carassius auratus.
 OS
 XX WO200105833-A1.
 PN 25-JAN-2001.
 XX 19-JUL-2000; 2000WO-US019687.
 XX 20-JUL-1999; 99US-0144766P.
 PR (REGC) UNIV CALIFORNIA.
 PA Ngai J, Specia DJ, Lin DM, Isaacoff EY, Dittman AH, Fan J;
 PI WPI; 2001-159517/16.
 DR N-PSDB; AAD02601.
 XX Novel G protein-coupled odorant family receptors, useful for screening
 XX compounds capable of modulating reproductive/sexual and non-sexual social
 XX behaviors.
 PS Claim 6; Page 47-49; 62pp; English.
 XX The patent discloses methods and compositions relating to odorant
 XX receptors, including a general expression cloning methodology which is
 XX useful for identifying novel G protein-coupled receptors and a novel
 XX family of odorant receptors and related nucleic acids, ligands, agonists
 XX and antagonists. R5.24 which is an odorant receptor and the nucleic acid

Matches	139;	Conservative	69;	Mismatches	123;	Indels	1;	Gaps	1;
Qy	1	LPHSVCTDVCPGCTGRGFVQREBICFDSPICADGHEVSRKPGRECEQCQGEDYWSNAQKS	60						
Db	538	VPLSVSSICPPGTRKAIERNYPICDCHDCVCTAGHISNOTDAIECARCLPEPWSNADRT	597						
Qy	61	ECVLKEVEYLAYDEALGFTLVILSVFGAFVVLAVTAVYVTHRTPLVNASDWOLGFLIQV	120						
Db	598	ACVPKQVEPLSGDTGTICALLVVLISGSLFTCAVALVFFVYHRTSPIVRANNSDLSELLL	657						
Qy	121	SLIIMLLSSMLFTDKPHNNSCMAGQVTLALGPSLCSLGLKTSLSFLAYRISKSTQLT	180						
Db	658	SLTLCFLCSLTFPSPPSQMSCLMRHTAFGTITLILGLKTSILGLKTIIVMLAPRATLPGSDVM	717						
Qy	181	S-MHPYRKIIIVLISVLAEIGICTAYLILPEPVPVYKNMESQNTKIILGCNEISIEFLYSM	239						
Db	718	KWFGPKQKRAIITFSLVQVVICVTLVNLVAPPTPROVMPRESAIIILLCEGSTIAFSLV	777						
Qy	240	FGIDAFALLCFLTUTTVARQLPNNYVEGKCIITFGMLVFPFIIMWSFVPVYLSYTKGPKMAV	299						
Db	778	LGVYIGVLACMCFLLAFLLARKLPDNFNEARLIAFSMLIFCAVWVAFVPAVISSPGKYSTLT	837						
Qy	300	ETFAILLASHGLLGCIAPKAPCLLIILRPERNT	331						
Db	838	ETFAILLASSYGLLGCIAPKAPCYIILMKSEKT	869						

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